Joint Capability Integration & Development System Overview

New Manuel & Sustainment Key Performance Parameters

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Agenda

- JCIDS Process Overview
- Joint Capability Areas
- Parameters and Attributes
- Recent Examples
- Key Takeaways

Bottom Line Up Front

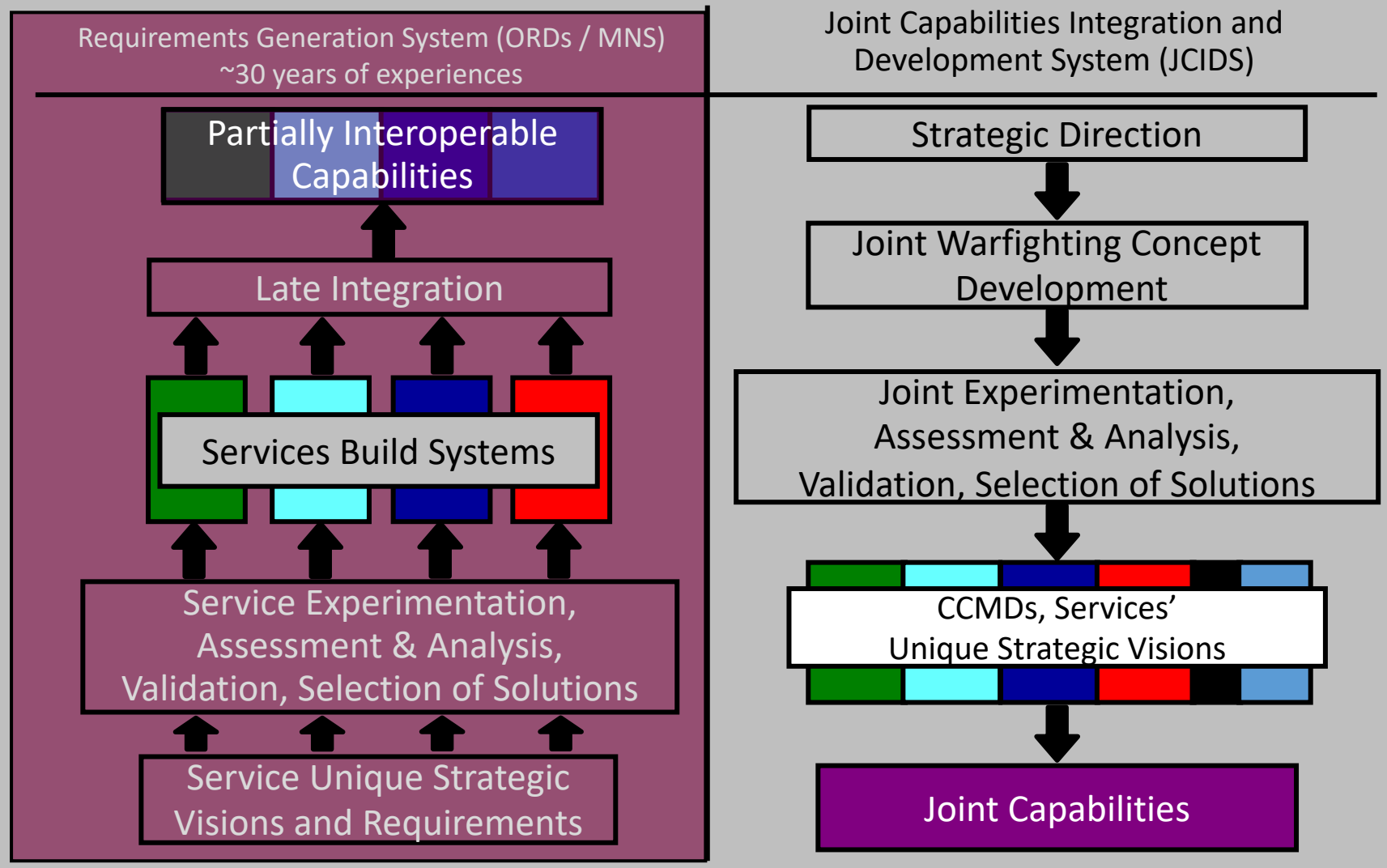
- JCIDS implemented in 2003 as a Joint Solution
  - JCIDS process continually being updated ~every 2 years, 31 Aug 2018
- Provides an established methodology to identify, assess, and prioritize capability gaps and redundancies
  - Engages the acquisition community early
  - Improves collaboration across DoD
  - Improves the identification of non-materiel alternatives
- Facilitates Joint review of capability proposals independent of Acquisition Category (ACAT)
  - Capabilities [when required / appropriate] are born Joint

Joint Capability Integration & Development System (JCIDS)

- Purpose
  - Identify, assess, validate, and prioritize joint military capability requirements
- Through
  - Capability Based Planning
  - Application of Joint Concepts and integrated architectures
  - Integrated, collaborative review process
    - Leverage expertise of all DoD – Services, Combatant Commanders, and Agencies

JCIDS along with the Defense Acquisition System and the Planning, Programming, Budgeting and Execution processes form the principal DoD decision support processes for training and equipping the military forces to support the national military strategy and the defense strategy

Threat vs Capability Based Planning



Capability Based Assessment (CBA) Process

DoD Strategic Guidance

Capability Development
- CONOPS
- Campaign-level Analysis
- Experimentation Assessment & Analysis
- Joint Urgent Operational Needs
- Directed Tasks

SPONSOR
Service, CCMD, or Agency

Capabilities-Based Assessment (CBA)

Definition Phase
- Capabilities
- Tasks
- Attributes
- Metrics

Needs Assessment Phase
- Gaps
- Shortfalls
- Redundancies
- Risk Areas

Solution Recommendation Phase
- ID Non-materiel alternatives
- ID Materiel Category
  - Evolutionary
  - Transformational
  - Recapitalization
  - Informational
- Bound affordability
- Assess technical risk
- ID experimentation needs

Capability Document
(ICD, DCR)

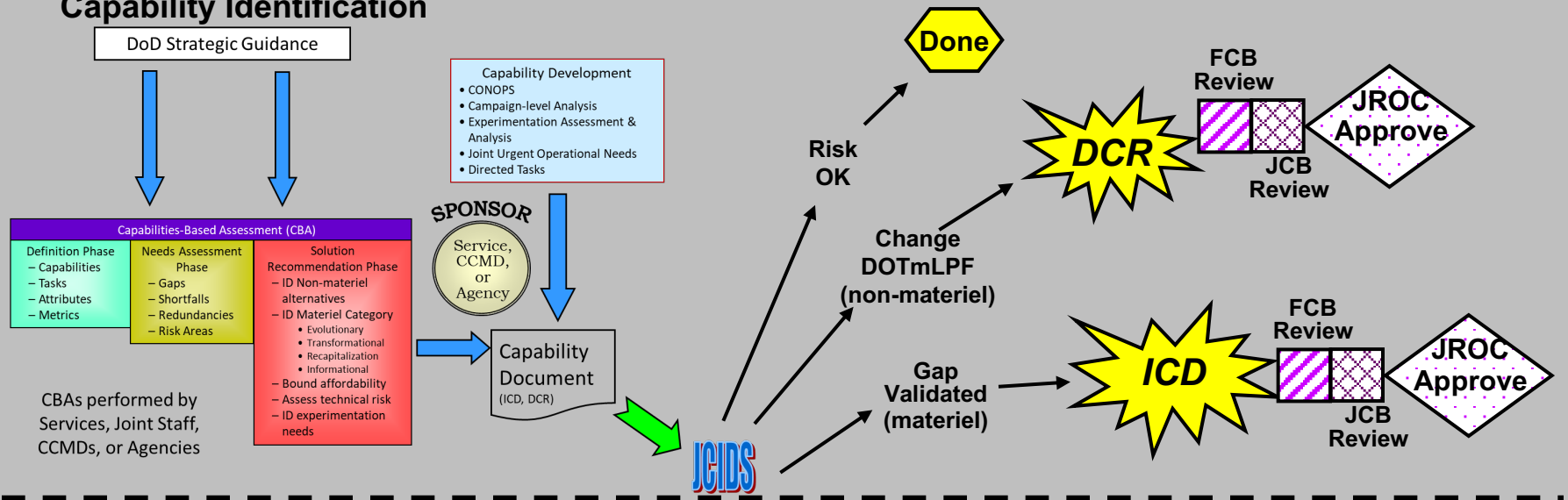
JCIDS

CBAs performed by Services, Joint Staff, CCMDs, or Agencies

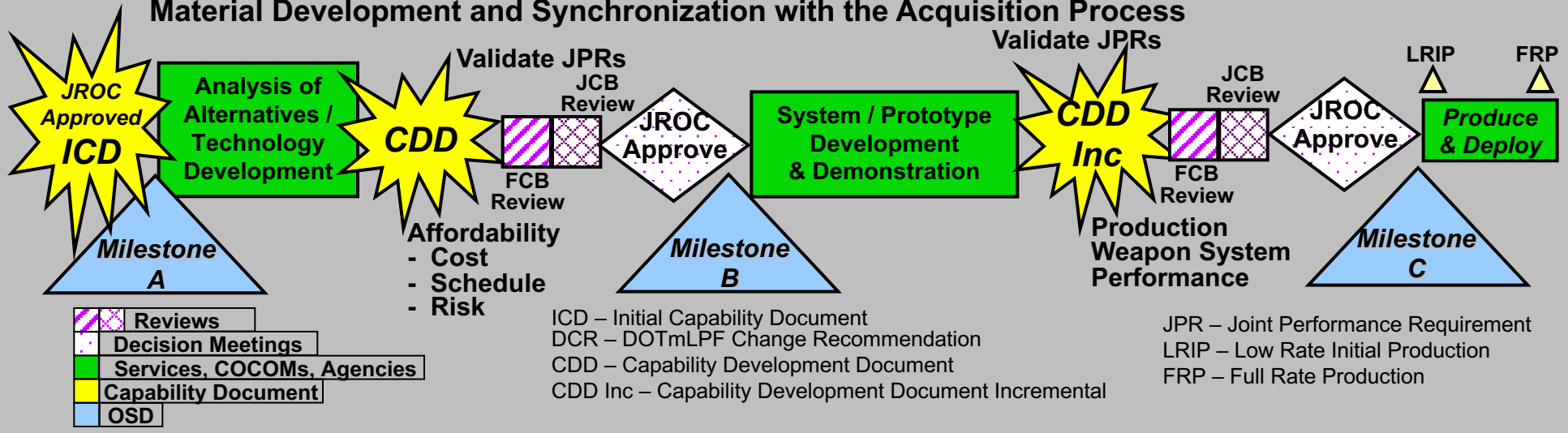
ICD: Initial Capabilities Document
DCR: DOTMLPF Change Recommendation

JCIDS and the Acquisition Processes

Capability Identification



Material Development and Synchronization with the Acquisition Process

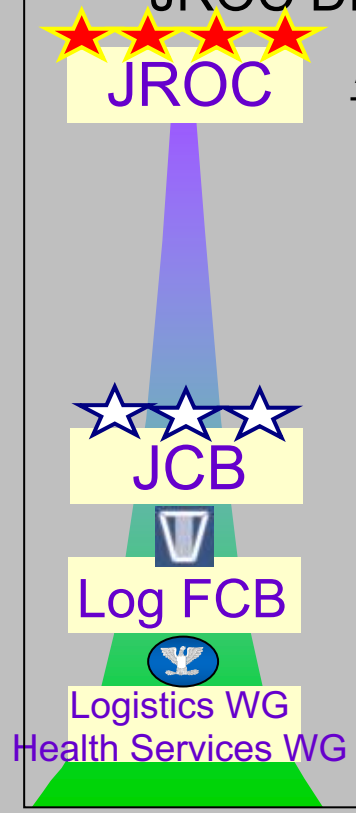


ICD – Initial Capability Document
DCR – DOTmLPF Change Recommendation
CDD – Capability Development Document
CDD Inc – Capability Development Document Incremental

JPR – Joint Performance Requirement
LRIP – Low Rate Initial Production
FRP – Full Rate Production

JROC Organization

JROC DECISION CHAIN



JROC
APPROVAL/VALIDATION
TOP LEVEL GUIDANCE
Chair: VCJCS
Council Members:
Vice Chief of Staff, Army
Vice Chief of Naval Operations
Vice Chief of Staff, Air Force
Assistant Commandant of the Marine Corps
CCMDs have standing invite

JCB
ISSUE ADJUDICATION

Log FCB
ISSUE REVIEW

Logistics WG
Health Services WG
ANALYTIC REVIEW

JROC RESPONSIBILITY

- Validates and approves
  - Capability Documents
    - Gaps
    - Solutions
    - JPRs, KPPs, KSAs, APAs
  - Concepts
- Items brought to the JROC
  - Documents (ICD, DCR, CDD)
  - Capability Gap Assessment
  - Joint Concepts
  - Directed tasks

JROC: Joint Requirements Oversight Council
JCB: Joint Capabilities Board
FCB: Functional Capabilities Board
FCB WG: Functional Capabilities Board Working Group

KPP: Key Performance Parameter
ICD: Initial Capabilities Document
DCR: DOTMLPF Change Recommendation
CDD: Capabilities Development Document
CPD: Capabilities Production Document

JCIDS Joint Staffing Designators

JROC Interest

Staffing → FCB Review → JCB → JROC

At least 1 JPR and where the intended level of joint oversight cannot be satisfied by assignment of a lower level JSD

JCB Interest

Staffing → FCB Review → JCB

At least 1 JPR and where the intended level of joint oversight cannot be satisfied by assignment of a lower level JSD

Joint Information

Staffing → Sponsor

Validation Authority

Applied to all capability requirements documents that do not need Joint Staff certifications or endorsements and are below the level of JCB interest. No established JPRs.

Joint Performance Requirements (JPRs) – Those performance attributes (KPPs, KSAs, and APAs) considered critical or essential to ensure interoperability where appropriate, between and among joint military capabilities , and are necessary to fulfill a capability gap (s) of more than one armed force, agency or entity of the DoD.

Tripwires

FCB Review → JCB → JROC

Nunn-McCurdy & MAIS

ACAT I programs with 10% cost or schedule growth

Functional Capability Boards

Logistics
RADM John Polowczyk
Vice Director for Logistics JS/J-4
Lead: COL Justin Herbermann

Log FCB Membership:
OSD (A&S) Co-chair
OSD, CA&PE
Services & NGB
DLA & DCMA
CCMD Reps
Other FCB reps
Other JS reps

Battlespace Awareness
Ms. Robin Meyer JS/J-2/DDJ28
Lead: Col Tim Uecker

C4/Cyber
RDML William Chase JS/J-6/DDC4
Lead: COL Chris Durham

Protection
BG Sean Gainey JS/J-8/DDFP
Lead: COL Eric Brown

Force Application
Brig Gen Lance Landrum JS/J-8/DDRCD
Lead: Col Matthew Bradley

Force Integration
Maj Gen Dirk Smith JS/J-7/VJ7
Lead: Mr. William Aldridge

Joint Requirement Oversight Council (JROC) / Joint Capabilities Board (JCB) Reps:

Chair: Gen Paul Selva; LTG Anthony Ierardi (Mr. Tom Carney)
Navy: ADM William Moran; RADM James Kilby (LCDR Jamis Seals)
Army: GEN James McConville; BG John Laskodi (Mr. Jeffrey Meister & Mr. Dan Wenger)
Air Force: Gen Stephen Wilson; Mr. David Detore (Mr. Mark Mcleod & Mr. Sheldon Ritichie)
Marine Corps: Gen Glenn Walters; MajGen Frederick Padilla (Mr. Kevin McCoyd & Mr. Doug Clark)
NGB: BG Michael Sutton (COL Matt Smith)

As of 12 April 2019

Joint Capability Areas – New

Tier I Joint Capability Areas

1	2	3	4	5	6	7	8
Force Integration	Battlespace Awareness	Force Application	Logistics	Command & Control	Communications & Computers	Protection	Corporate Mgt & Support

Tier II Medical & Logistics Capabilities

Deployment & Distribution	Supply	Maintenance (Depot & Field)	Logistics Services	Operational Contract Support	Engineering	Installations Support	★ Health Services

Tier III Medical & Logistics Capabilities

• Move the Force • Sustain the Force • Operate the Joint Deployment/ Distribution Enterprise	• Manage Supplies & Equipment • Inventory Management • Manage Supply Networks	• Inspect • Test • Service • Repair • Rebuild • Calibration	• Food Service • Water /Ice Service • Basecamp Services • Hygiene Services	• Contract Support Integration • Contractor Management	• General Engineering • Combat Engineering • Geospatial Engineering	• Real Property Life Cycle Management • Installation Services	• Health Protection • Health Care Delivery • Health Service Support

Airfield Mgt
Airfield Ops
Logisticians
Aircrews
Security Forces
Civil Engineers
Port Ops
Services
Maintainers

Delivering Joint Logistics Capabilities

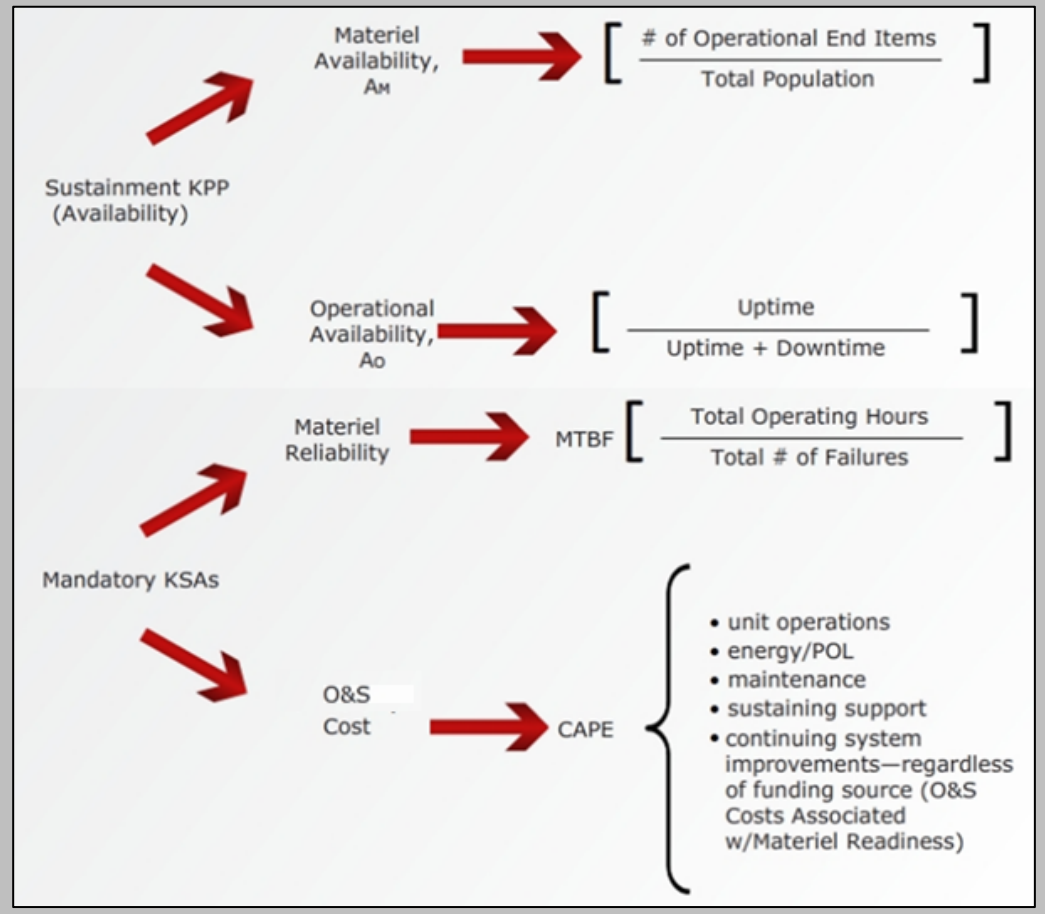
Joint Performance Requirements

- Introduced with latest JCIDs Manual (31 Aug 18)
- Areas that are considered critical or essential to ensure interoperability or fulfill a gap of more than one armed force.
- Joint Staff Gatekeeper designates JPRs
- KPPs, KSAs and APAs can be determined by Lead FCB for JPR designation
- Those not determined will be upgraded to a KPP if not already designated
- The JPR designation is a key criterion used by the Joint Staff Gatekeeper in assigning the appropriate JSD

Parameters and Attributes

- Key Performance Parameters (KPPs): Critical attributes, failure may result in reevaluation or program modification
- Key System Attributes (KSAs): Essential attributes not selected as KPPs, senior sponsor leadership control
- One of four mandatory KPPs **(Force Protection, Survivability, Sustainment, Energy)**
- Derived from operational capability requirements, assumptions for its use, and planned log support

Example: Sustainment KPP consists of Operational Availability (Ao) and Materiel Availability (Am) KPPs and Materiel Reliability and Operations & Support Cost KSAs



KPPs Drive Capability Outcomes—they define minimum requirements

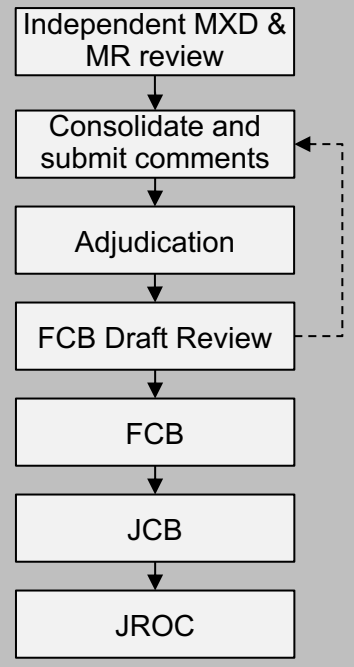
Sustainment KPP Partners

- Office of the Under Secretary of Defense (OUSD A&S)
  - Per MoA and JCIDS Manual, receive analytical support
  - MR reviews metrics for ***rigor, testability, and acquisition supportability***
- ODASD(Systems Engineering)
- J8/Capability Assessment Division
- Service requirements sponsors
  - USAF Major Commands (AFSPC/AFGSC/ACC)
  - USA Training and Doctrine Command
  - USMC Combat Development and Integration
  - OPNAV N9
- Program offices

Collaborative review for rigor, testability and supportability

Sustainment KPP Review Process

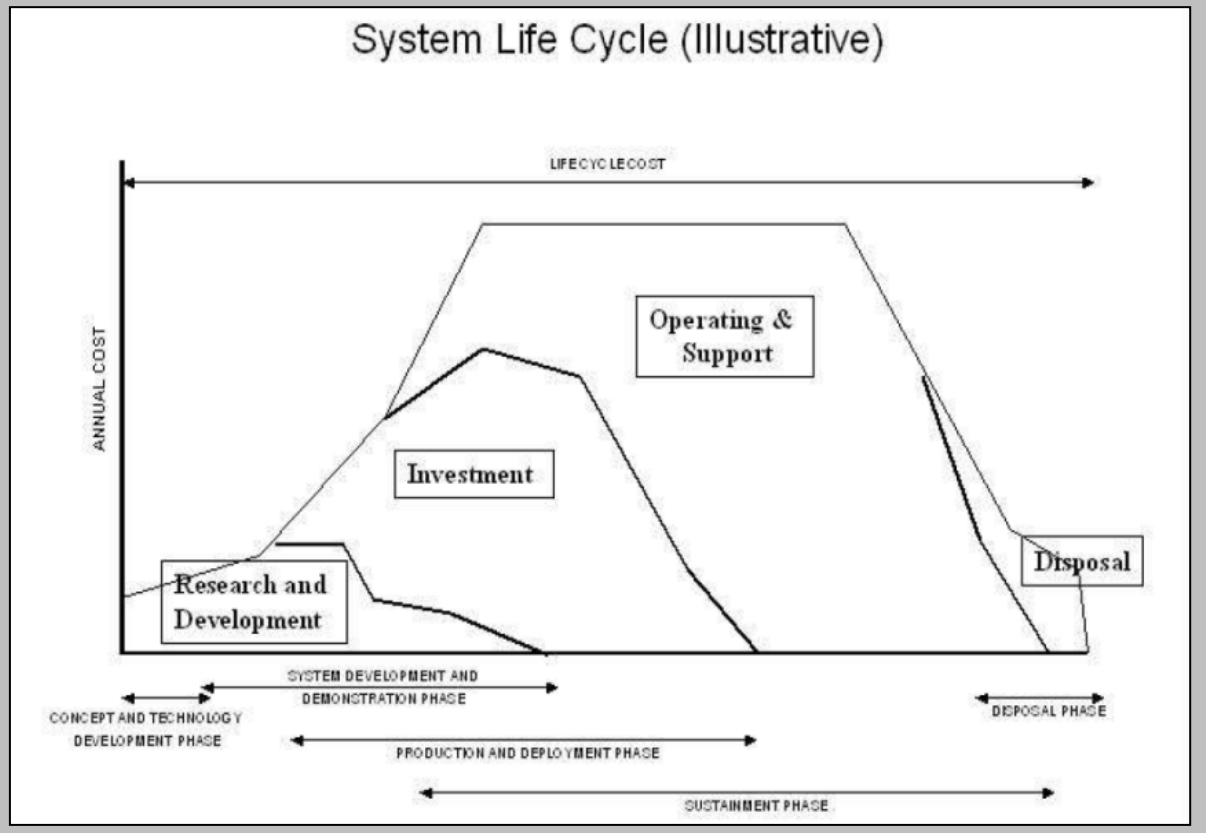
- MMSD reviews **all** MDA programs for sufficiency
  - Ensures Logistics is adequately addressed, not just Log FCB reviewed programs
  - Able to work through differences at Planner level due to maturity of KPP
- Assess
  - Integration of affordability, commercial, performance based logistics, reliability, and corrosion initiatives into the requirements
  - Ability of senior leaders to make informed trade decisions during the acquisition phase through rigor and rationale of sustainment metrics
- Shape
  - Continue focus on reliability, affordability, and maintainability to improve readiness of future Joint Force
  - Guide programs in setting their sustainment strategies
- Communicate and collaborate with OSD, JS, and Services to refine process, clarify KPP, and tailor Sustainment KPP for individual programs



To date no unresolved comments have required JROC adjudication. Goal remains to help Service sponsors accurately define their requirements.

Reliability, Availability, Maintainability

- O&S Cost accounts for ~60-70% of a total system cost, reduce through increased reliability
- Increased commonality combined with maintainability attributes reduce logistics footprint and increases interoperability
- Current JCIDS Manual includes recommended sustainment metrics for various weapons types



Logistics Portfolio Diversity

Key Takeaways

- “Plans are nothing. Planning is everything.” – D. Eisenhower
- “Earlier is better” when shaping the KPPs requirement
- Sustainment KPP (Ao and Am) are required for ALL ACAT programs. Only J4 can grant waiver
- Ignoring it won’t make it go away – it’s Mandatory, it’s the Minimum

Every program is unique…KPP ensures sufficiency of sustainment planning is apparent in metrics selected and supporting rationale.

JCIDS References

JCIDS Wiki Site:

- JROC Charter CJCSI 5123.01H
- JCIDS Manual
- JCIDS Training
- https://intellipedia.intelink.gov/wiki/Joint_Capabilities_Integration_and_Development_System

Joint Capability Areas:

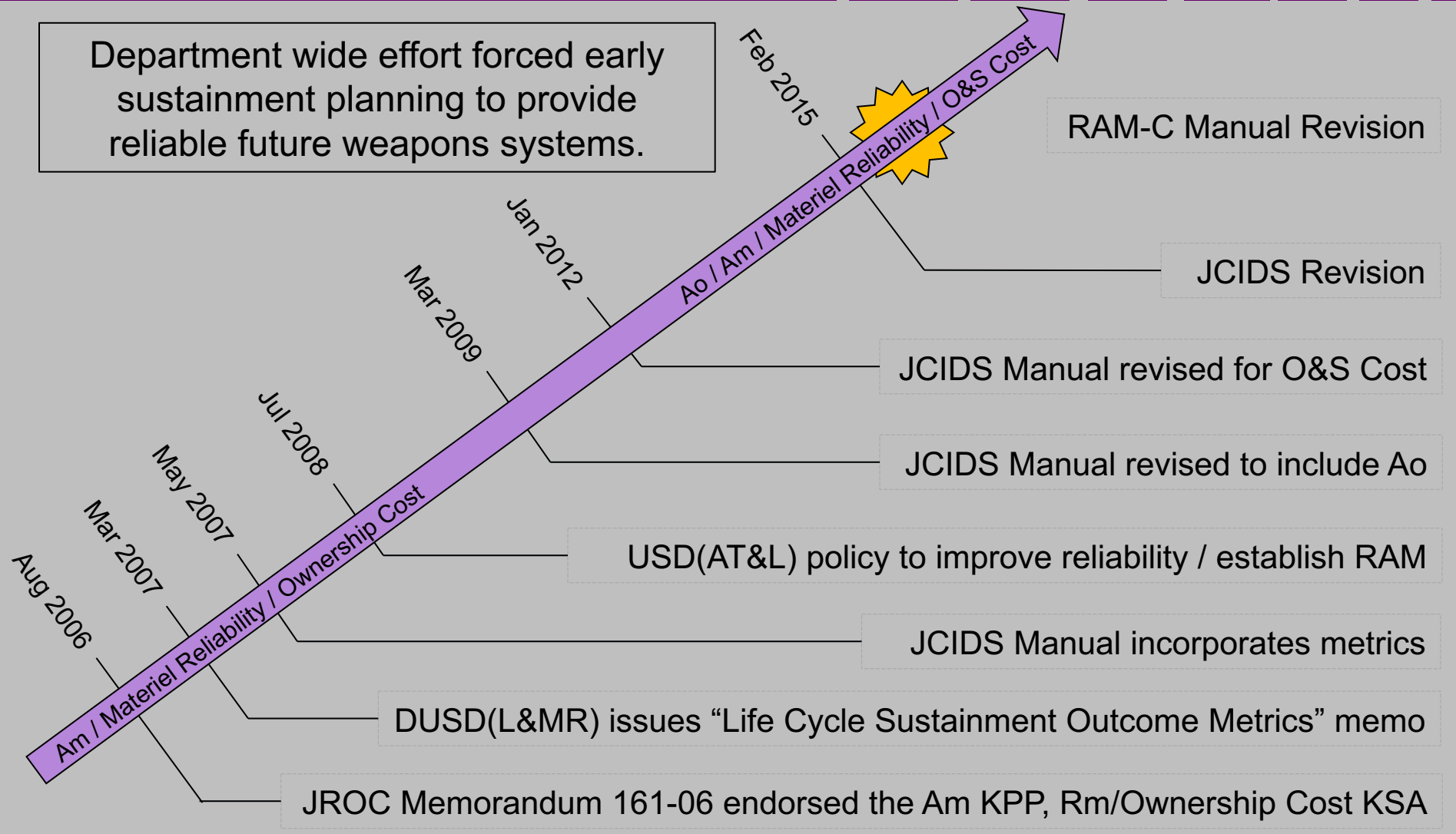
- https://intellipedia.intelink.gov/wiki/Joint_Capability_Areas

Questions?

Backup

History of the Sustainment KPP

Department wide effort forced early sustainment planning to provide reliable future weapons systems.



Examples of Logistics FCB Capability Documents

ICD	DCR	CDD	CPD
Integrated Multi-Modal Operations (IMMO) IS-ICD	Expeditionary Theater Opening DCR	Presidential Helicopter CDD	CMV-22B Aerial Resupply CPD
Improved Turbine Engine Program AoA	Joint Engineering Operations Course DCR	Advance Pilot Training T-X Family of Systems CDD	CH-53K CPD
Surface Connector Recapitalization ICD	Joint Concept for OCS	Mobile Landing Platform (AFSB) CDD	KC-46 Aerial Tanker CPD
Future Vertical Lift ICD	GFM – Data Initiative Transp Tracking Number	Analysis of Mobility Platform CDD	Joint Light Tactical Vehicle CDD
Fleet Oiler Recap (T-AO(X)) AoA	Medical Model & Simulation Requirements DCR	Presidential Aircraft Recapitalization CDD	Ship to Shore Connector CPD

Log FCB – Portfolio Overview (JCA 4)

4.1 Deployment and Distribution

- <u>AIR</u>
- C-130J Hercules
- C-27J
- C-17
- C-5
- CH-46
- CH-47F
- CH-53E/K
- KC-46A Mod
- PAR
- Pres Helo
- CV-22
- LUH
- UH-60M
- Large Executive Aircraft Recapitalization (LEAR)
- MQ-25 Carrier Based Unmanned Air System (CBUAS)

- <u>MARITIME</u>
- JHSV
- MLP
- T-AO (X)
- T-AO-187
- T-OE
- LCAC
- SSC

- <u>LAND</u>
- JLTV
- FMTV

4.2 Supply

- GCSS-J
- Inventory Management
- Global Key Munitions
- Global Petroleum Distro
- OPDS

4.3 Maintenance / Readiness

- HERCULES M88A2
- Depot Maintenance
- Field Maintenance
- Sustainment Funding
- F-35 Maintenance

4.4 Logistics Services

- Food Services
- Water and Ice
- Contingency Basing
- Hygiene Services
- Mortuary Affairs
  Contaminated Human Remains

4.5 Operational Contract Support

- Eprocurement
- Contract Support Integration
- Contracting Spt
- Contractor Management

4.6 Engineering

- Gap Crossing
  - Assault Gap Crossing
  - LOC Bridging
- Global Access Engineering
  - Airfield Damage Repair
  - Port Damage Repair
- Combat Engineering
  - Deny Movement and Maneuver
  - Lethal Counter mobility
- Geospatial Engineering

4.7 Base and Installation Support

- Airfield Operations
- Installation Law Enforcement
- Physical Security
- Lodging
- Port Services
- Mobile Diving

4.8 Health Services

- Joint Operational Medicine Information System (JOMIS)
- Total Force Fitness
- Force Health Protection

JROC Mission / Responsibilities (10 USC 181)

Assist the CJCS in:

Assessing joint military capabilities*, and identifying, approving, and prioritizing gaps in such capabilities, to meet applicable requirements in the National Defense Strategy (NDS)

Reviewing and validating whether a capability fulfills a gap in joint military capabilities*

Establishing and approving joint performance requirements* that ensure interoperability and are deemed necessary by the CJCS to fulfill capability gaps

In consultation with the advisors to the JROC:

Develop recommendations for program cost and fielding targets that require a level of resources that is consistent with the level of priority assigned to the associated capability gap and have an estimated period of time for the delivery of an initial operational capability that is consistent with the urgency of the associated capability gap

INPUT FROM COMBATANT COMMANDS:

JROC shall seek and consider input from commanders of combatant commands in carrying out its mission as defined in Title 10 USC 181

INPUT FROM CHIEFS OF STAFF:

JROC shall seek and strongly consider the views of the Chiefs of Staff of the armed forces, in their roles as customers of the acquisition system, on matters pertaining to a capability proposed by the armed force, Defense Agency, or other entity of the Department of Defense and joint performance requirements*

Reviewing performance requirements for an existing or proposed capability that the CJCS determines should be reviewed by the JROC

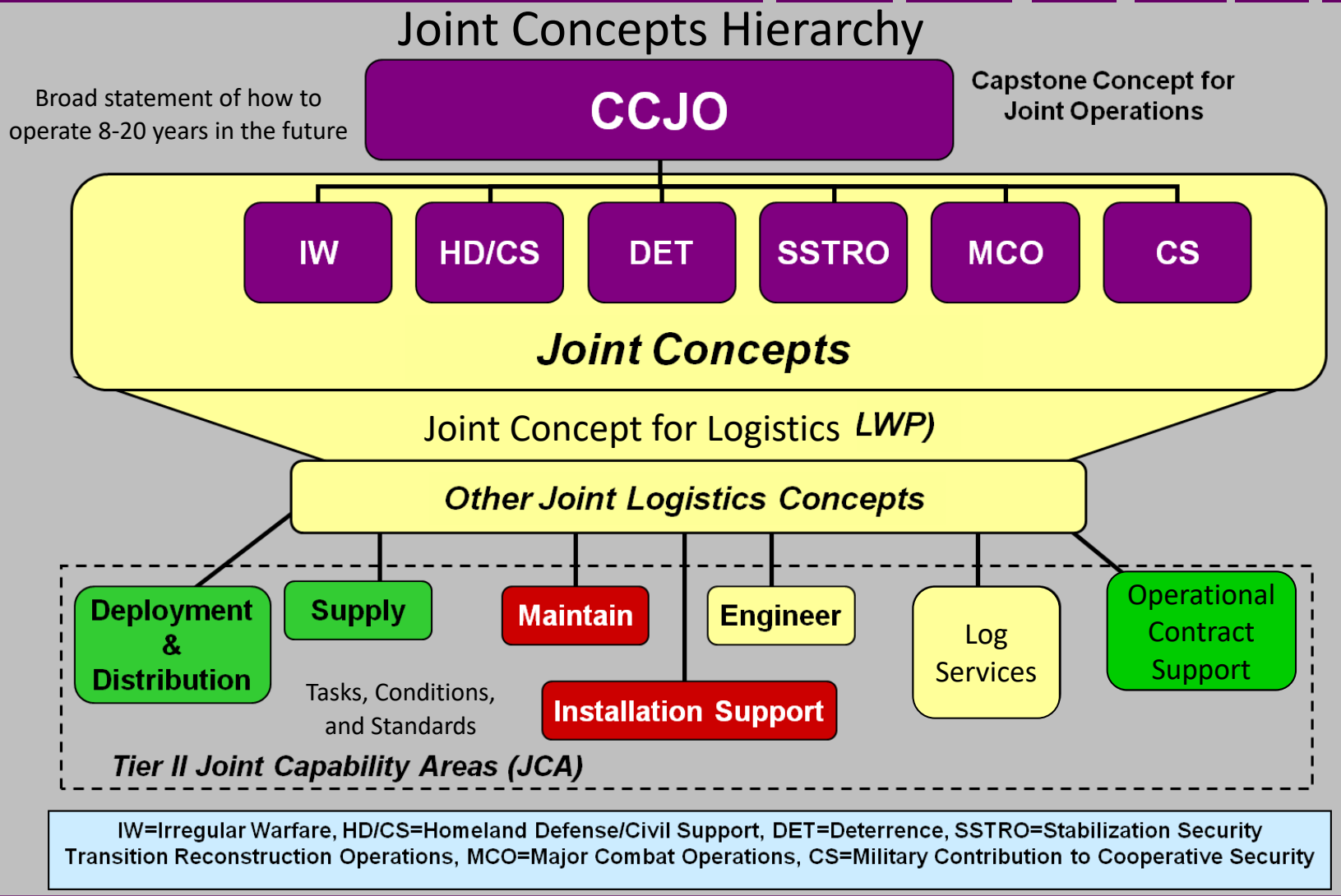
Identifying new joint military capabilities based on advances in technology and concepts of operation

Identifying alternatives to any acquisition program that meets approved joint military capability requirements for the purposes of 2366a(b), section 2366b(a)(4), and section 2433(e)(2)

Address other matters assigned to it by the President or Secretary of Defense

* As defined in 10 USC 181, the term “joint military capability” means the collective capabilities across the joint force, including both joint and force-specific capabilities, that are available to conduct military operations. The term “joint performance requirement” means a performance requirement that is critical or essential to ensure interoperability or fulfill a capability gap of more than one armed force, Defense Agency, or other entity of the Department of Defense or impacts the joint force in other ways such as logistics..

Logistics Family of Concepts



JCIDS Revision Guidance and Intent

Focus on joint military capability requirements

- ✓ Establishment of Joint Performance Requirements (JPR)
  - ➢ Those KPPs determined to be inherently "joint"

Determine the appropriate level of oversight while still maintaining insight

- ✓ Greater reliance on insight into joint force capabilities with limited Joint oversight

Determine right level of rigor vs. flexibility

An Improved JCIDS – Streamlined and Responsive

JCIDS Revision Guidance and Intent

Minimize touch points between sponsor and JROC

- ✓ Reduction of capability requirements documents
  - ➢ No longer requiring the Capability Production Document (CPD)

Address evolutionary acquisitions and rapid fielding requirements

Incremental Development, Modular Open System Approach (MOSA), and Interoperability

- ✓ Incremental Capability Development Document (CDD)

Determine right level of rigor vs. flexibility

An Improved JCIDS – Streamlined and Responsive

JCIDS Revision Challenges

4

Oversight versus Insight

- All documents submitted to JS for JSD determination and uploaded into KM/DS data repository of record

Joint performance requirements versus inherently Service requirements

- Sponsors nominate which performance attributes (KPP/KSA/APAs) require Joint oversight and JS Gatekeeper makes final determination

Address evolutionary acquisitions and rapid fielding requirements

- More than just streamlining, new innovative approaches to address responsiveness

Development of Investment Review Process

- Determine focus of this review (program cost and fielding targets), what the established process will be, and how the JROC will support in developing recommendations

Capability-Mission Lattice 2.0

27 July 2015

(Ends-Ways-Means)

Strategic Guidance

- National Security Strategy
- National Defense Strategy
- National Military Strategy
- National Security Interests
- Unified Command Plan
- Quadrennial Defense Review
- Quadrennial Roles/ Missions Review
- Defense Planning Guidance
- Joint Strategic Capabilities Plan
- Guidance for Employment of the Force
- GFM Implementation Guidance

Missions / Planning / Operations

- Maintain Nuclear Deterrence
- Defense of the Homeland
- Defeat Adversaries
- Global Stabilizing Presence
- Combat Terrorism
- Counter Weapons of Mass Destruction
- Deny Adversary Objectives
- Crisis Response / Limited Contingency Ops
- Military Engagement / Security Cooperation
- Counterinsurgency and Stability Ops
- Support to Civil Authorities
- Humanitarian Assistance / Disaster Response

ISCs / OPLANs / CONPLANs

CCIO / Other Concepts and CONOPS

Decompose missions into discrete tasks

Universal Joint Tasks (UJTs)

Assess tasks against pacing threats/conditions

Quantified tasks lead to Capability Requirements

Threats/ Conditions

Critical Intelligence Parameters

Threat Assessments

- Near Peer Competitors
- Rogue Nations
- Non-State Actors
- Weapons of Mass Destruction

- Treaties/Alliances
- Environmental / Natural Events

Supply of Forces (Global Force Mgmt)

Force Elements (Readiness)

- USA
- USN
- USMC
- USAF
- SOCOM
- CSAs

Service/Joint Exercises

Wargaming / M&S

Joint Lessons Learned

Readiness Reporting

Capability Requirements (Portfolio Management)

Force Support
- Force Management
- Force Preparation
- Human Capital Mgmt
- Health Readiness

Battlespace Awareness (SAP)
- Planning & Direction
- Collection
- Processing/Exploitation
- Analysis/Production
- Dissemination/Relay

Force App. (SAP)
- Maneuver
- Engagement

Logistics
- Deployment/Distribution
- Supply
- Maintain
- Logistic Services
- Operational Contract Spt.
- Engineering
- Base/Installation Spt.

Command and Control (SAP)
- Organize
- Understand
- Planning
- Decide
- Direct
- Monitor

Comms and Computers (SAP)
- DODIN Capabilities
- Enterprise Services

Prot. (SAP)
- Prevent
- Mitigate

Build Ptnr
- Communicate
- Shape

Corporate Management
- Advisory & Compliance
- Strategy & Assessment
- Information Management
- Acquisition & Technology
- Program / Budget / Finance

Supply of Capability Solutions

Requirement-to-Solution Mismatch (Performance and/or Quantity) Identifies Capability Gap

Note: Each CML is a snapshot in time. Can be layered for depth.

Resources/Investment

- RDT&E
- PROC
- O&M
- MILPERS
- MILCON

MFP 1 | MFP 2 | MFP 3 | MFP 4 | MFP 5 | MFP 6 | MFP 7 | MFP 8 | MFP 9 | MFP 10 | MFP 11

Capability Solutions (Materiel and Non-Materiel)

- Doctrine
- Organization
- Training

Materiel – Research/Acquisition/Sustainment

Land Systems (SAP)	Sea Systems (SAP)	Air Systems (SAP)	Space Systems (SAP)	Cyber Systems (SAP)

- Logistics
- Mission Data / Intelligence Mission Data
- Science & Technology / Research & Engineering

- Leadership/Education
- Personnel
- Facilities
- Policy

Joint Requirements Overview

Joint Requirements Oversight Council (JROC)
Established by Title 10, USC Section 181
CJCSI 5123.01G(JROC Charter) – 12 Feb 2015
Acquisition Category (ACAT) I = JROC Interest

Joint Capability Board (JCB)
Assists JROC / Governed by CJCSI 5123.01G
ACAT II & Below = JCB Interest

Functional Capabilities Boards (FCB)
Organized by Joint Capability Area / Assists JCB
Logistics (J4)

Logistics FCB
Review, Assess, Adjudicate lower level issues
Responsible for Sustainment & Energy KPPs

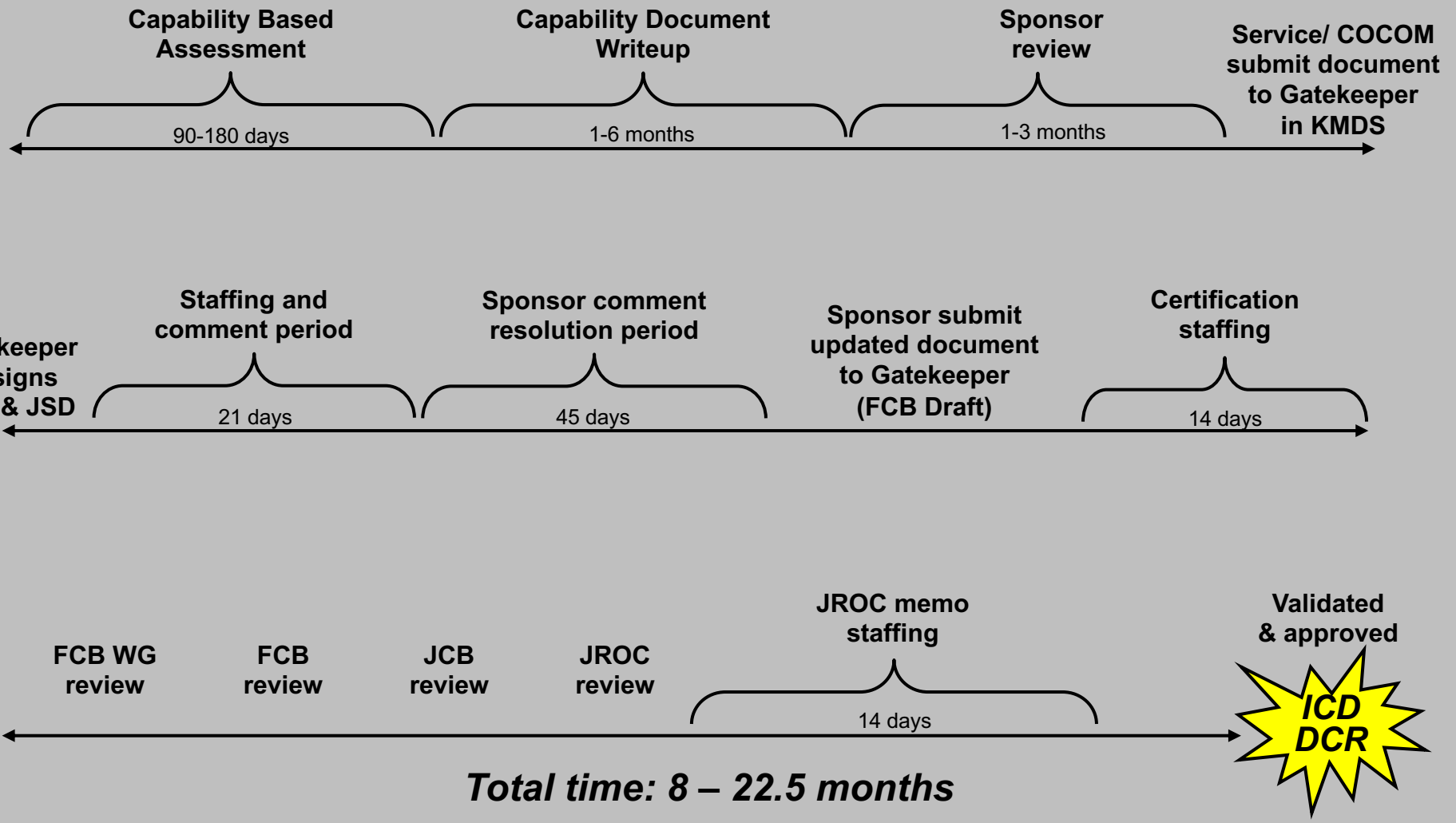
Maintenance Division
JCIDS Manual establishes MXD as JS Proponent for Sustainment KPP

Joint Capabilities Integration and Development System (JCIDS)

Governed by CJCSI 3170.01I (23 Jan 2015)

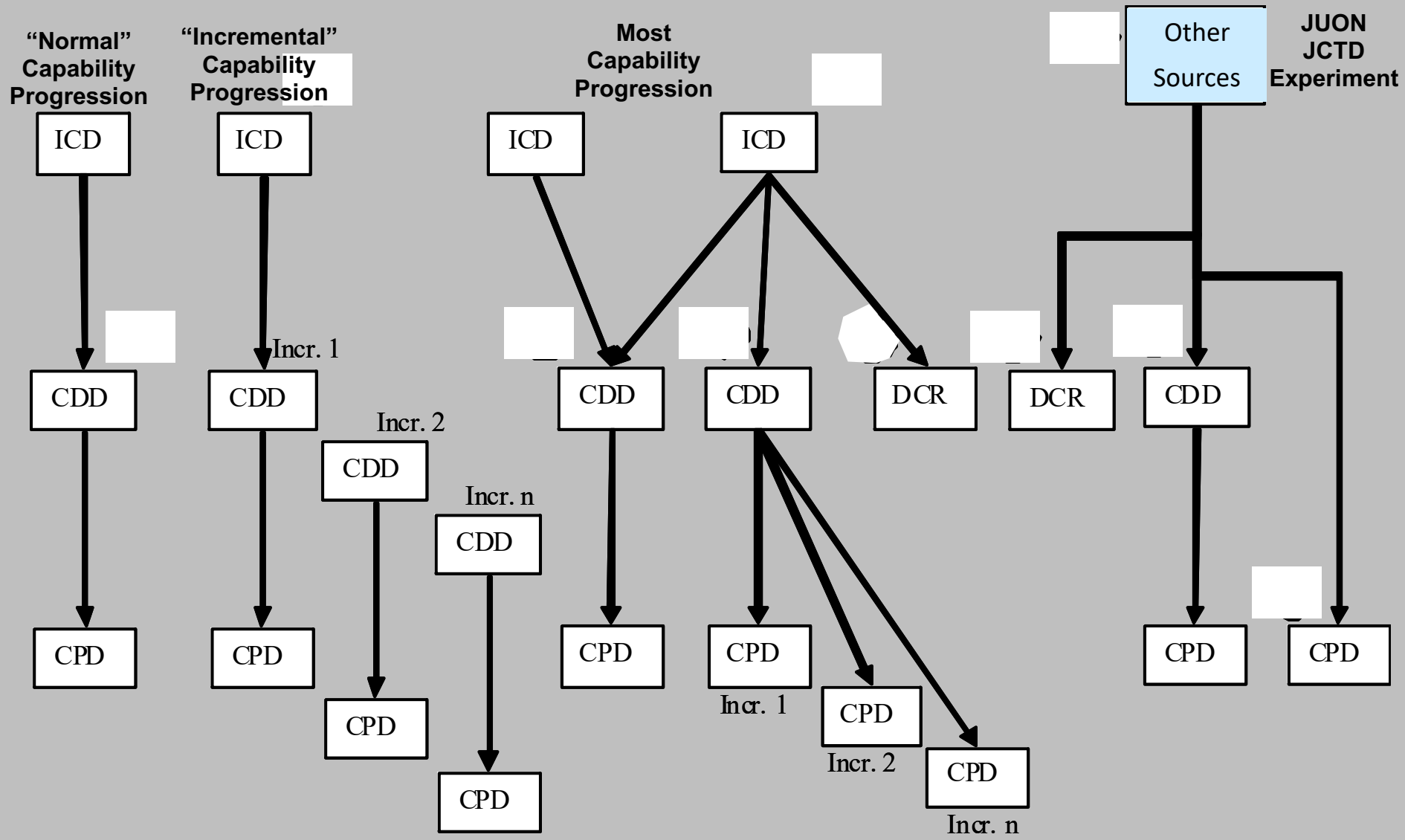
Exists to support JROC and CJCS in identifying, assessing, validating, and prioritizing military capability requirements

Notional Capability Timeline



Total time: 8 – 22.5 months

JCIDS Document Relationships



Recent Examples of Process

CH-53K
Heavy Lift Helicopter

Issue
- Future CPD/MS-C
- No Sustainment KPP
- Scenario based KPP

Resolution
- Multiple TELCONs between MR/CD&I/PMA-261/FCB/J8
- Uncovered rationale to support sustainment planning already done

Outcome
- MXD memo endorsing preservation of legacy KPPs while articulating the sustainment development done to support training and normal operational tempo

Spaced Based Infrared System Modernization

Issue
- Improperly low MTBF metric for Reliability KSA; conflicted with CJCSI
- Excluded Materiel availability

Resolution
- Telecon with engineers to trace Mission Reliability KSA to CJCSI directive
- Due to small inventory, JCIDs allows Materiel availability to be equal to Operational availability

Outcome
- Edited CDD language prior to formal staffing; expected to have no issues in coordination

LHA(R)
Amphibious Assault Ship

Issue
- Change to approved CDD for Flight I (well deck)
- Existing CDD dtd 2005
- Partial Sustainment KPP added (Ao/O&S)

Resolution
- Several meetings with MR and OPNAV/NAVSEA
- Crafted language to influence (Am tracking and list of critical subsystems impacting Reliability)

Outcome
- JROC approved CDD change

Joint Service Aircrew Mask for Strategic AC

Issue
- “Sustainment does not apply”
- No reliability KSA

Resolution
- TELCONS on-going between Sponsor and Program manager
- Defined Sustainment
- Reliability metric definition – ongoing collaboration

Outcome
- Program Manager and Sponsor adjudicated comments during staffing and corrected language in document